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STATE PARTICIPATION AND PRIVATIZATION IN THE MINERALS SECTOR

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I. INTRODUCTION

1. Mineral resources, as part of a nation's natural heritage, have historically been considered a legitimate interest of the State. Indeed, the regulation of mining activity and the appropriation of the wealth resulting from it are among the earliest recorded activities of the State. State or Crown ownership of mineral resources was the rule in many countries before the industrial era and, following the advent of industrialization, the State in most developed countries retained authority or specific prerogatives with regard to mining, more so than was the case for other industries[1].

2. Perceptions of the proper role of the State with regard to mining have changed over time and continue to evolve. At present, in most developed countries, the role of the State with regard to the mining industry is on the whole no different from that for other industries[2]. Some differences in the State's treatment of this industry remain nevertheless, largely due to traditions of detailed regulation, including the need to regulate the rights to mineral finds. More recently, many States have established specific environmental regulations for the mining industry.

3. In developing countries, perceptions of the role of the State with regard to mineral resources have changed considerably over the last few decades. During the 1960s and 1970s, developing countries increasingly adopted the objective of economic independence, in many cases as an extension of the struggle for political independence from former colonial powers. Because domestic private industry in most developing countries was small and poor in capital and technology, the State was obliged to take on an active role, well beyond that of planner or regulator. In this context, the minerals sector was seen as an engine of growth and mineral resources became a priority for State control because of their strategic importance in the industrialization process[3]. Consequently, direct State participation in mining increased. Since the early 1980s however, the trend towards State participation in developing countries has reversed. During this period, a deteriorating financial situation has forced many countries to reconsider the role of the State. State-owned enterprises, including in the minerals sector, have been privatized, *inter alia* to reduce fiscal deficits.

4. Some of the countries which are in transition to a market economy system have a significant mining sector and extensive mineral resources, notably the Russian Federation and Kazakhstan. The process of liberalization under way in these countries generally includes the minerals sector.

5. Although some of the issues raised by State participation and privatization in the minerals sector are common to other sectors of the economy[4], some issues and problems are peculiar to the minerals sector. Thus, in some countries, concern persists about the exercise of sovereignty over natural resources and especially about the ability of the State to manage adequately those resources and fully capture mineral rents in a privatized environment. In other countries, State participation persists as a policy designed to maintain local employment and income levels in areas with few alternatives to mining. Where divestiture is envisaged, the valuation of a mining concern can be problematic, both for assets such as infrastructure and potential mineral reserves, as well as for eventual liabilities such as the impact of mining and processing activity on the

natural environment. Divestiture by the State may entail externalities and social costs such as the redundancy of dedicated mining labour and the retraining and possible relocation of such labour. Given the large scale of many State mining operations, the monetary value of the operation, if offered for sale as a whole, can be forbidding for domestic and even international investors. Finally, even when the mineral sector is fully or mostly privatized, the State still has an important role to play in establishing the economic and regulatory conditions under which the mining industry operates: for example, a well articulated mining law, backed by detailed regulations and enforcement procedures, would seem to be a necessary condition for a successful private minerals sector.

6. The present short paper does not attempt to present an exhaustive analysis of the above problems or to spell out in detail the advantages and disadvantages of State participation and privatization. Rather, it is intended to provide an introduction to the work of the Expert Group by giving a summary description of developments over the last few decades and highlighting issues that seem relevant to Governments which may be reconsidering the extent of State participation in the minerals sector. Following the deliberations of the Expert Group, a more detailed report will be prepared reflecting the Group's discussions, as well as any conclusions arising therefrom.

II. CHANGES IN STATE CONTROL OF NON-FUEL MINERAL PRODUCTION

7. The rationale for direct participation by the State in mining is often complex and varies from country to country. Dobozi (1989, pp.47-48) has identified the following reasons for State ownership of mining companies, in particular in developing countries:

- ***Ideology***: Some countries have an ideological preference for public control and public ownership of the means of production.

- ***Economic decolonialization***: Many governments of developing countries have viewed the establishment of State owned mining enterprises as an act of economic decolonialization and the enforcing of permanent sovereignty over natural resources.

- ***The "commanding heights"***: It has been argued that the mineral sector, owing to its strategic position and the kinds of linkages it generated, is so significant for the development process that it can not be left in private hands, whether the investors be domestic or foreign.

- ***Natural resource rents***: It has been argued that the private control of a monopoly or the fortuitous ownership of a scarce natural resource generate unearned incomes or rents for their owners. The public appropriation and distribution of rents derived from rich mineral deposits have been important motivations for public ownership of natural resource sectors in many developing countries.

- ***Capital intensiveness, weak private sector and risk***: In most developing countries only the State or foreign enterprises are able to mobilize the volumes of capital necessary to mount mineral projects. If foreign

participation is not desirable, responsibility for undertaking large projects falls to the State. State participation is also motivated by dynamic market failures resulting from excessive risk aversion and shortsightedness of private entrepreneurs, which prevent them from entering into activities that take a long time to mature.

• ***Maximization of government revenues and/or foreign exchange earnings***: Mining projects can be very important sources of government revenue and of foreign exchange earnings and several governments have felt that direct State participation provides the best guarantee that these revenues will be maximized.

• ***Social goals***: Direct State ownership has been seen as a way to promote broader social goals such as regional development, reduction of unemployment, more equitable income distribution etc.

8. The State can influence minerals sector activity in various ways and to varying degrees, from simple oversight or regulation to partial or total control of mineral production. The concept of "control" in this context is complicated since it relates not only to the structure of company ownership but also to the extent to which owners actually exercise their rights. A mining company is usually referred to as "State-controlled" when the State, or a regional (sub-national) government, has a majority interest in the enterprise; this majority interest - which may range from 51 to 100 per cent of company equity - gives the State potential control of strategic decisions, notably concerning the disposal of revenue. On the other hand, the State may elect to have only a minority share in a mining enterprise; while a minority interest would not allow total control, it could be used by the State to influence decision-making within the company and to ensure access to financial and other information that may be important for the State. Finally, the State may decide to have no ownership stake in domestic mining operations and to influence mineral sector activity only as a regulator and tax collector.

9. In table 1, which is based on a survey of the ownership structure of mineral producing companies, the "State-controlled share" of mineral production has generally been calculated as proportionate to the State's share of equity (whether majority or minority) in the producing company or companies concerned. It records, for each of the major minerals and metals, the evolution during the past two decades of the State-controlled share of world production, defined to exclude the wholly State-controlled production of the former USSR, Eastern Europe and socialist Asia. The share of the latter countries in total world production varies considerably from one mineral to another but generally tends to be quite substantial: in 1993, for the minerals listed, this share ranged from 14 per cent in the case of bauxite to 54 per cent for manganese ore. In Table 1, changes in the State-controlled share of production from one year to another represent the combined effect of two types of changes: transfer of companies between the private and the public sector, and changes in the level of production of private and public sector companies. The shares thus indicate changes in the extent of influence of the State *relative* to the private sector, rather than the absolute extent of State participation.

Table 1

State-controlled production of selected minerals and metals, 1975-1993
(per cent of world production excluding the former USSR, Eastern Europe and socialist Asia)

Mineral/metal	Developed countries				Developing countries			
	1975	1984	1989	1993	1975	1984	1989	1993
Bauxite	3.5	6.9	5.4	0.0	16.9	22.3	24.4	22.6
Alumina	8.4	14.7	13.3	6.4	4.5	6.3	9.8	6.6
Aluminium	11.9	19.9	22.1	13.0	3.5	8.5	11.0	8.8
Copper ore	3.0	7.7	3.3	1.0	31.3	38.0	35.7	23.0
Refined copper	2.8	5.5	3.3	0.0	18.9	27.2	26.2	20.0
Gold	0.7	2.0	0.6	0.0	2.3	2.6	2.3	0.0
Iron ore	7.8	13.7	8.1	3.4	21.6	27.1	31.0	23.7
Lead ore	6.5	9.9	5.7	2.3	5.9	8.1	6.5	4.1
Manganese ore	25.3	2.1	1.6	3.5	11.2	24.0	23.4	23.5
Nickel ore	1.0	13.9	11.7	5.1	2.6	6.7	6.4	9.0
Refined nickel	1.3	10.3	12.5	4.5	0.0	2.7	2.3	1.7
Phosphate rock	3.7	10.3	10.0	12.2	30.1	34.6	34.3	34.5
Potash	23.6	41.4	34.2	16.1	0.0	1.2	5.6	5.0
Tin ore	0.4	1.4	0.0	2.2	27.2	28.5	20.3	26.0
Refined tin	0.3	1.0	0.0	0.0	13.5	26.7	25.8	46.0
Zinc ore	6.0	8.6	7.3	5.0	8.7	10.1	9.0	8.0
Refined zinc	9.4	11.7	8.9	8.0	4.6	7.0	5.5	3.0

Sources: UNCTAD, 1994a, annex tables 23 and 24, and preliminary data for 1993 supplied by the Raw Materials Group, Sweden. Note that data for 1993 are estimates based on the 15 largest controlling shares (both State and private sector shares) for each mineral/metal. To the extent that some small State-controlled shares may lie outside of the fifteen largest shares, the data will tend to understate the total State-controlled share for the mineral/metal in question.

10. Broadly speaking, the State-controlled share of production increased in both developed and developing countries from the mid-1970s to the mid-1980s, when it reached a peak, and has declined in both groups of countries since then'. During the earlier period, arguments cited in paragraph 7 (in particular the arguments concerning the "commanding heights" and natural resource rents) influenced some of the nationalizations in developed countries, as in the cases of nationalization of potash production in Canada and of lead, zinc, nickel and aluminium production in France; however, some of the nationalizations in these countries resulted from a desire to avoid closures of operations and the resulting unemployment, as in the case of tin mining in the United Kingdom.

11. Starting in the mid-1980s, Governments in developed countries began to divest themselves of their interests in mining and metals companies, and by 1993 a significant reduction in State control had occurred for nearly all the minerals listed. The reduction mainly occurred as part of economy-wide privatization programmes designed to reduce the role of the State (it affected, for example, alumina/aluminium in Germany, lead and zinc in France, and base metals and gold in the United Kingdom). To some extent it was also due to reduced production and shutdowns of some of the ailing companies that had been nationalized to preserve employment. Developed countries nevertheless still accounted in 1993 for a higher State-controlled share than developing countries with respect to the production of aluminium, refined nickel, potash and refined zinc.

12. In developing countries, most of the more important nationalizations in developing countries, including copper producing companies in Chile, Peru, Zaire and Zambia, took place before 1975. However, significant nationalizations, usually based on the arguments cited above, took place in the late 1970s and early 1980s. These included nationalization of bauxite and alumina operations in the Caribbean, tin in Malaysia and increased State ownership of copper operations in Zambia. While the proportion of world production controlled by developing country Governments has diminished for most metals and minerals since 1984, it has fallen less than in developed countries and in 1993, it remained high - at 20 per cent or more - for bauxite, copper, iron ore, manganese and tin. The main reason for the fall in the State-controlled share of copper production is the decreasing level of production of State-controlled companies in Zaire and Zambia coupled with the fact that increases in new copper production capacity in recent years have been undertaken mainly by the private sector. The significant increase in the share of tin production by State-controlled companies in developing countries is mainly a result of closures of (privately-owned) tin smelters in developed countries.

13. In 1993, the main States exercising some degree of control over mineral production, together with the corresponding minerals, were:

Mineral/metal	Developed countries	Developing countries
Bauxite, alumina and aluminium	France, Italy, Norway, Spain	Bahrain, Brazil, Guinea, India, Jamaica, Venezuela
Copper ore and refined copper	Portugal	Chile, Islamic Republic of Iran, Peru, Zambia
Iron ore	Sweden	Brazil, India, Mauritania, Venezuela

Mineral/metal	Developed countries	Developing countries
Lead ore	Finland	Peru
Manganese ore	France	Brazil, Gabon, Ghana, India
Nickel ore and refined nickel	Finland, Greece	Botswana, Colombia, Indonesia
Phosphate rock	France, Israel	Morocco, South Africa, Togo, Tunisia
Potash	France, Israel	Brazil, Jordan
Tin ore and refined tin	Portugal	Bolivia, Indonesia, Malaysia, Myanmar, Zimbabwe
Zinc ore and refined zinc	Finland, Italy	India, Peru

14. There are several reasons why State ownership of mining and metals companies has remained higher in developing countries than in developed ones. Whereas the income from State-owned mineral enterprises has been a relatively small element of total Government income in the latter group of countries, it remains critical in many developing countries' budgets. Governments have been reluctant to relinquish control over such an important source of budget revenue, given the difficulties they perceive in extracting resource rents from privately owned mining companies. Income from mineral sales also provides groups associated with mineral production, including both company management and mineworkers' unions, with significant political leverage, which may have been utilized to prevent privatization efforts[6]. Thus, privatization has mainly been motivated by a deteriorating financial situation and growing fiscal deficits, resulting from external shocks in the form of falling terms of trade and/or increased debt services, and has often formed part of structural adjustment programmes. Until 1993, however, few countries had made significant progress with their privatization plans in so far as the mineral industry is concerned.

15. Thus, while developed-country governments have divested themselves of interests in several large mineral and metals companies, there are so far few examples of successfully concluded privatizations in developing countries. During the period 1975 to 1993, only a few privatizations of mining companies took place in these countries[7]. Examples include reductions in the State's share of the Compañhia Vale Rio Doce (CVRD, which produces mainly iron ore, but has interests also in manganese, bauxite/alumina/aluminium and gold production)in Brazil, and privatizations of minority State holdings in copper companies in Mexico. More ambitious privatization programmes have been presented since 1993, although in many cases they have not yet been implemented. Some of these concern major producers such as CVRD in Brazil, Zambia Consolidated Copper Mines Limited (ZCCM) in Zambia (copper) and P.T. Tambang Timah in Indonesia (tin, partial privatization).

16. The only major programme for privatization of State-held mining companies that has so far been successfully implemented is the one in Peru. The privatizations carried out so far under this programme are shown in table 2. The

programme is not yet completed; one major property, the La Oroya metallurgical complex currently owned by the State-controlled company Centromin Peru, remains to be sold, in addition to other, smaller properties. The Peruvian privatization programme, which has relied on an international bidding process, has been part of a much broader economic reform programme aimed at restoring investor confidence in the country. Parts of this programme were specifically intended to change features which had reduced the country's attractiveness to international investors in mining; they included reforms of the mining code and of the taxation regulations for mining as well as the opening up for exploration of large areas which had previously been reserved for the State.

Table 2
Privatizations in the mining sector in Peru

Company	Type of property	Sales price (1,000 US$)	Date
Buenaventura	Silver mine	1,510	19 July 1991
Minera Condestable	Copper mine	11,291	26 May 1992
Hierro Perú	Iron ore mine	120,000	5 Nov. 1992
Quellaveco[a]	Copper deposit	12,756	15 Dec. 1992
Cerro Verde[b]	Copper mine	35,447	10 Nov. 1993
Jehuamarca/Cañario[c]	Copper/gold deposit	100	25 Jan. 1994
Las Huaquillas[c]	Gold deposit	35	25 Jan. 1994
La Granja	Copper deposit	1,000	10 March 1994
Ilo	Copper refinery	66,626	22 April 1994
Colpar/Pallacochas[d]	Gold deposit	57	22 July 1994
Tintaya/Coroccuhuayco	Copper mine	277,005	6 Oct. 1994
Cajamarquilla[f]	Zinc refinery	193,000	4 Nov. 1994
Berenguela[e]	Copper/silver deposit	40	8 March 1995

Source: Fernandez, J.V., Ramirez, J.C. and Ruiz, R.V. 1995.

[a] Includes US$ 756,000 for payment of interest
[b] Total after price adjustment following auditing
[c] Initial annual payment
[d] Six-year concession.
[e] Sales price includes US$ 55 million for payment of debt and price adjustment of US$ 3.8 million in favour of Minero Peru
[f] Includes US$ 112 millions in installments over 14 years, and US$ 40 million for debt.

17. There are several specific reasons for the slow pace of privatizations of mining companies in developing countries. One is the large size of many of the companies concerned which makes it difficult or impossible to use the stock market as a vehicle for privatization, even where stock markets exist (for instance, there are only four stock exchanges in Sub-Saharan Africa). Accordingly, international bidding or negotiated sales to selected international companies are the available solutions. In both cases, the preparations involved are expensive and time-consuming, and the financial negotiations may be very complex. Particular difficulties arise in valuing ore reserves, which normally constitute a major asset of the company to be privatized and which are usually only partly explored.

18. Other difficulties are posed by the need to transfer non-commercial responsibilities, such as housing, health and education services for employees, either to public authorities or to the new owners, and the possible need for employment reductions. The employees of the original enterprise are unlikely to accept willingly reductions in the quality of services or in their own number; depending on the power of the employees and their trade unions, the resolution of such problems can become a major political issue and is likely to be very lengthy. It should be noted that non-commercial responsibilities are usually more important in the case of mining companies than in other industries. Since mines tend to be located in remote areas far from major population centres, companies have often found it necessary to provide a wide range of services to employees in order to attract labour. While private companies often provide similar services to their employees as do State-owned ones, the level of service to be provided in the future may become the subject of difficult negotiations.

19. The existence of environmental liabilities, which in the case of older operations can be very serious, may also lead to delays in the privatization process, since the new owners will be very reluctant to accept any obligation to clean up environmental damage resulting from past activities. The existence of such liabilities has been one of the major difficulties faced by the Peruvian Government in its privatization programme.

20. Finally, investors' interest is affected not only by the characteristics of the company being offered for sale, but also by the general investment climate, the presence of an economic environment that is supportive of privately owned mining and, since mining is a very long-range economic activity, the probability that the environment will remain favourable for the foreseeable future. While many developing countries have reformed not only their general policies with regard to foreign investment but also their mining codes and their taxation regimes for mining, some countries have yet to undertake reforms aimed at improving investment conditions for mining.

21. In the countries in transition, where production was wholly State-owned, privatization has tended to take a different form than in developing countries. In the Russian Federation, in particular, ownership has often been transferred to the previous management or employees, often against no or only symbolic payment. To date, there are no examples of existing operations being sold to foreign interests, although in a few cases foreign companies have acquired mineral rights or have entered joint ventures. A lack of clarity regarding the future conditions facing foreign investors in the mining industry partly accounts for the absence of privatization linked to foreign investment. The continued privatization process in these countries is likely to result eventually in a

major reduction of the State-controlled share of mineral production in the world as a whole, since these countries, and especially the Russian Federation, are important producers of a large variety of minerals.

22. A number of intended privatization programmes have been announced only recently and some of these relate to very large mining concerns, such as CVRD in Brazil. It can thus be expected that the trend towards less State control of mineral production will continue and possibly accelerate over the next few years, in spite of the fact that some major State-controlled companies - CODELCO in Chile, OCP in Morocco - appear likely to remain in the hands of the State.

III. PERFORMANCE OF STATE-CONTROLLED COMPANIES AND ARGUMENTS FOR PRIVATIZATION

23. There exists a large literature on State-owned enterprises in general, including many empirical studies of the performance of these enterprises, although very few of these studies relate to mining enterprises[8]. These studies generally examine two basic arguments about the differences between State-owned and private firms, namely: (1) that the managers of State-owned enterprises will not strive to improve the efficiency of the firm as an owner-manager would do with his own firm (the principal/agent problem); and (2) that State-owned enterprises tend to be inefficient because there is no effective way to sanction poor performance (the disciplinary problem). These and other arguments are reviewed below, first in relation to State enterprises in general and subsequently with particular regard to mineral enterprises.

24. As regards the first argument, it can be noted that the principal/agent problem is likely to exist to more or less the same degree in large privately owned enterprises, where there may be as many or more levels of delegation as in a State-owned enterprise, and where it cannot automatically be assumed that the objectives of managers at any level coincide with those of the shareholders. As regards the disciplinary problem, it is usually argued that poor performance in the case of the private firm leads to low profitability and the exit of share holders, resulting in the fall of share prices, which exposes the firm to the possibilities of take-over; this mechanism is supposed to be absent in the case of State-owned enterprises since they are not allowed to go bankrupt. However, experience shows that most large firms, whether privately or public owned, are not allowed to go bankrupt and that the disciplinary mechanism is absent in both cases (there are also a number of examples of State-owned enterprises being liquidated). Furthermore, the history of mergers does not appear to exhibit a systematic pattern of unprofitable firms being taken over or of profitability improving as a result of mergers. (Chang and Singh, 1993, pp. 50-55).

25. A possible third reason for differences in the performance between State and privately owned companies may be that the State tends to direct the management's activities in an overly detailed, bureaucratic and intrusive manner, thus limiting the management's freedom of action and flexibility. Finally, as already noted, State-owned enterprises are often established and operated for reasons other than profit, whether it be the promotion of employment, improving the distribution of income or stimulating development in individual industries or regions.

26. A number of empirical studies have attempted to measure the performance of State-owned enterprises. At the level of individual enterprises, several studies have attempted to measure differences in profitability between privately and publicly owned firms and a number of these studies find that State-owned enterprises have shown lower profitability. Comparison is often difficult, however, because many State-owned enterprises are located in sectors where a relevant private-sector comparator firm may not exist. Moreover, given the intended positive externalities of State-owned enterprises, profit may not be the appropriate measure. More detailed analyses of State-owned enterprise performance, focusing on technical efficiency or cost efficiency, suffer to some degree from the same drawbacks. The results of the empirical studies carried out are thus inconclusive, especially concerning developing countries. (Chang and Singh, 1993, pp. 55-66).

27. In order to place the above results in perspective, it is worth noting some differences between State-owned enterprises in general and State-owned mining enterprises. First, the goal structure of State-owned mining enterprises is probably more complex than that of other State-owned enterprises. This is so because both export revenue and government income from mining enterprises can be very substantial and their strategic national importance often implies that maximization of these two revenue streams is likely to have higher priority than the profitability of the individual company. In addition, as already mentioned, the State-owned mining company, more so than other State-owned companies, may be called upon to provide welfare services to its employees and their families (and often for the general population in the surrounding area), as well as to develop infrastructure in a way which promotes regional economic development. All these factors could contribute to lower profitability and lower cost efficiency on the part of State-owned mining companies. On the other hand, most State mining companies are export-oriented and they operate in markets with relatively few imperfections. Thus, they are exposed to competition, perhaps more so than other State-owned enterprises, and this could be expected to impose limits on inefficiency and stimulate cost efficiency.

28. Very few systematic studies have been carried out on the performance of State-owned mining enterprises[9], and much of the debate on this topic is based on anecdotal evidence. These enterprises have been criticized for not being technologically dynamic, for wasteful and inefficient operating practices, and for lack of foresight with regard to exploration and reserve policies. The following comment, which concerns the former structure of the Bolivian tin company COMIBOL, may be taken as representative:

> "...it developed a corporate mode of behaviour which maximized production in the short term to finance the country's efforts at economic growth, and ignored production costs, in part as a result of the burden of a political commitment to maintaining an excessively large workforce in a country with few alternative sources of employment. This mode of corporate behaviour prevented the investment either in exploring for new reserves, as existing ones were quickly depleted, or introducing new more efficient technology as plant and equipment grew obsolete... The installation of what amounted to a puppet management supported by an inertial bureaucracy, which was reproduced in all the company's operating subsidiaries as well as its headquarters in La Paz, ensured that it was the Ministry of Mines and

> Metallurgy rather than a dynamic entrepreneurial elite or mine management system which determined corporate strategy." (Jordan and Warhurst, 1992, p. 20)

29. In a recent case study of the Zambian copper industry, which is dominated by the State-controlled enterprise Zambia Consolidated Copper Mines Limited (ZCCM), a simple econometric model was used to assess the relative importance of various factors contributing to the poor performance of State mining enterprises. It found that factors inhibiting investment in the enterprise, such as the confiscation of copper revenues by the government for other social needs, had a serious adverse effect on capacity and played an important role in explaining the decline of the Zambian copper industry. In contrast, factors contributing to inefficiency and poorer profit margins, including the pursuit of goals other than cost minimization and profit maximization, were not significant (Chundu and Tilton, 1994). Similarly, in the case of Peru, it has been argued that the Government's appropriation of the profits of State-owned mining companies and its reluctance to leave the companies with sufficient financial resources for new investment, replacement of equipment and maintenance was a major factor behind the unsatisfactory performance of the companies (see UNCTAD, 1993a, pp. 42-46).

30. On the other hand, proponents of State-owned mining enterprises have pointed to examples of well-managed, dynamic companies - such as LKAB in Sweden, Outokumpu in Finland, Codelco in Chile or CVRD in Brazil - as evidence that State-owned enterprises can perform well in the mining industry. Perhaps one of the most important factors that contributes to the better performance of efficient State-owned mining companies is the degree of autonomy in decision-making that an enterprise has *vis-à-vis* government. Autonomy - or minimal interference by the State - is important not only with respect to day-to-day management issues but more especially with regard to strategic decisions, for example on capital investment, which can determine the long-term viability of the enterprise. In effect, the State is likely to lose out in the long run, to the extent of eventually paying out subsidies, if it continually makes revenue demands or imposes other restrictions, such as limits to foreign exchange retention, which compromise the longer-term viability of the enterprise that it owns. Paradoxically, autonomy is probably easier to achieve when the enterprise is highly profitable, since the State will then be more inclined to let it retain some of its earnings for internal investment; in this regard, a superior resource endowment - exceptionally rich ore, for example - is evidently helpful, since it will generate substantial resource rents for the State enterprise concerned. Nevertheless, the marginal enterprise also, and perhaps especially, needs a large degree of operational autonomy, including the power to close down mining operations which have become irredeemably inefficient. Negotiating autonomy will always remain difficult, however, since the concept runs counter to some aims of State ownership. Moreover, autonomy by itself is not sufficient - a stable and competent management is necessary in order to make good use of operational flexibility.

31. While there has been recently a spate of privatization activity and announcements of planned privatizations, there are reasons why privatization of State-owned mining enterprises should not be seen as a panacea. As a general rule, unprofitable public enterprises are difficult if not impossible to sell and consequently the government often has to take action to make the enterprise profitable before privatizing it. Such action usually entails a technical and

financial restructuring programme aimed at modernizing the technology used and reducing the company's debt burden. Once the resources necessary to implement the restructuring programme have been found and the programme has been implemented, it may be asked why the government should want to divest itself of what is now a return-yielding asset. The answer to this is usually given as the imperative to reduce the size of the fiscal deficit. However, as the private sector is likely to pay no more for the firm than the present discounted value of its future profits, the sale is tantamount to bringing forward in time the government's future purchasing power. The sale has thus to be evaluated by asking whether such new-found funds are obtained on more favourable terms to the government than would be the case with more conventional forms of borrowing. Moreover, in order to ensure favourable reception of the privatization proposals, the State may err on the side of underpricing the shares of the enterprise. In this case, the public sector's long-term resource constraint will actually become greater with privatization than without and endanger the sustainability of the fiscal stance over the long run.

32. It is recognized that the need to strengthen the Government's financial position in the short term may have to take precedence in certain cases where the size of the fiscal deficit poses an obstacle to economic development and sales of government assets, including State-owned mining companies, are the only realistic solution. If the situation is less urgent, however, and the Government is mainly interested in identifying ways whereby the contribution of the State-owned minerals sector to economic development can be enhanced, alternatives other than full privatization may deserve consideration. Such alternatives include public enterprise reform, management contracts, partial privatization and joint ventures.

33. Public enterprise reform in the context of State-owned mining companies normally takes the form of a technical and financial restructuring programme of the kind referred to above, that is, a programme aimed at modernizing the technology used and improving the company's financial situation. An important component is often the introduction of a management system that gives the company management sufficient autonomy in areas such as staffing, investment, marketing and production operations. While such programmes may meet with opposition from entrenched interests and oblige the government to take difficult decisions, they allow the retention of the company as an income-yielding asset to the government. Restructuring programmes of this kind have been carried out at one time or another in almost all State-owned mining companies. The extent to which they have been successful appears to be strongly linked to the extent of autonomy that has resulted from the restructuring as well as the capacity of the management.

34. Management contracts have been used in several developing countries, in particular following nationalization of a foreign-owned company, as was the case in Zambia, for instance. The management contract in such cases is usually viewed as an interim measure, intended to facilitate the transition from private to public ownership, to be replaced eventually by national management. Less often, international mining companies have been asked to manage the operations of State-owned companies. Experiences of management contracts are mixed. Where previous owners have been asked to stay as managers, the transition to national management has often taken much longer than anticipated. Moreover, whatever the reasons for concluding a management contract, it almost inevitably raises the type of principal/agent problems referred to above. In order to ensure that the hired management pays adequate attention to profitability, an incentive scheme related

to profits has to be introduced. At the same time, the government may insist that its non-economic objectives are also taken into account. The consequent potential for conflict between the owner and the management is probably one of the main reasons why large international mining companies are reluctant to enter into management contracts with State-owned mining companies.

35. Joint ventures, including production-sharing arrangements, between private mining companies and governments have been used in several countries, for instance in bauxite mining and alumina production in Jamaica and Guinea. Normally, they are used in combination with a management contract, where the private partner is responsible for the management of the joint property. Although they may result in problems similar to those of pure management contracts, these problems are often easier to resolve, since the private partner has a greater interest in safeguarding the profitability of the operation. The solution may, however, be at the expense of the Government's non-economic objectives.

36. One tentative conclusion that it may be possible to draw from the limited available experience is that economic and non-economic objectives need to be clearly defined and separated, regardless of the form of ownership and management. Thus, the non-commercial objectives of the government, with regard, for instance, to promotion of regional economic development or foreign-exchange effects, could be negotiated with or recognized by the company in the same way as the objectives set by legislation concerning the natural environment or workers' health and safety. Subject to these governmental objectives, the management of the company would be expected to maximize profits over the life of the mineral deposit. In this way, many of the objectives of State ownership of mining companies referred to in paragraph 7 above could be met through means other than ownership, such as legislation or negotiated agreements with foreign investors, and this is likely to result in less confusion about company objectives. On the other hand, this should not be taken to mean that privatization, in particular if forced by financial constraints, is necessarily the preferable way to improve the financial performance of an existing State-owned mining company. Alternatives to full privatization, in particular technical and economic restructuring and establishment of joint ventures, may be more likely to preserve the return on government assets and can be tailored to meet the government's non-economic objectives.

37. Examination of alternatives to full privatization offers an opportunity to the government to review its priorities *vis-à-vis* the mineral sector and may help in defining policies which apply to all companies irrespective of ownership and which address substantive issues arising from the existence of a significant mineral sector, including regulation of mining rights, taxation of mining and environmental protection. Even where full privatization is the preferred alternative, complementary measures may be needed to ensure not only that the privatization process proceeds efficiently but also that it brings positive and continuing benefits to the nation over the long term. Thus, new finance and investment laws may need to be put in place, a new mining code or a more detailed set of regulations may have to be established, and fiscal policy may need to be revised. This would appear to be particularly important in countries in transition, where the regulatory and legislative framework is much more recent and may still be evolving.

38. A well prepared and comprehensive approach to privatization should ensure that the State, while divesting itself of its interest in mineral production,

does not abrogate its position as ultimate guardian of the natural heritage of the nation and continues to exercise its duty to ensure that the nation's mineral resources effectively contribute to economic development[10].

IV. ISSUES FOR DISCUSSION

39. Given the limited amount of comparative analytical work that has been undertaken to date, the views and conclusions presented above remain very preliminary. The meeting of the Ad Hoc Group of Experts on State Participation and Privatization in the Minerals Sector, by reviewing and comparing experiences in different countries, thus provides an opportunity to make a valuable addition to the present limited body of knowledge. Since the Group of Experts will probably bring to light a number of issues and problems - and hopefully suggest solutions- which cannot be anticipated at this stage, the purpose of this final section is to suggest a structure for discussions rather than a definitive or priority list of issues.

40. The following structure for discussions seems likely to accommodate most issues which would arise:

(i) The rationale for State participation and for privatization. Discussions could cover the various aims and objectives which governments might wish to achieve (ensuring sovereignty, maximizing government income in the long and short term, improving productivity, promoting national and regional economic development and employment,etc.) and relate these to the extent of State control (full control/majority participation, partial control/minority participation, and no direct participation/regulation only).

(ii) The conditions, policies and instruments required. This would comprise the conditions needed for efficient production in the case of State-controlled enterprises and, where divestiture is envisaged, the actions needed both to prepare for and to implement the privatization exercise, including the various options which may be open to governments especially with regard to financial aspects.

(iii) The roles of the public and private sectors. This could cover the different responsibilities of government and of private enterprise with regard to the privatization exercise, including instances where responsibilities might need to be institutionalized, as well as possible roles for regional and international institutions.

41. The above approach should help to order discussions so as to point to some conclusions in each area. These, in turn, should help governments and interested private sector agents to anticipate problems that may arise, and to identify and make better use of specific policies and instruments, including those that are especially relevant to the minerals sector.

Endnotes

1. For legal purposes, most countries with a significant mining sector apply the "regalian" principle, that is, the separation of underground and surface rights, with underground rights at least nominally being vested in the State. The regime of non-separation of rights or "common law" regime, according to which underground rights are held by the surface landowner, prevails in Ireland, the United Kingdom and the United States (although gold and silver are excluded in the former two countries). In developing countries where this regime was used earlier it was generally abandoned in favour of the regalian principle. It should be noted, however, that the rights to deposits of some non-metallic minerals, in particular basic construction materials such as stone, sand and gravel, belong to the landowner in many countries.

2. The latest example of developed country governments taking a specific interest in the minerals sector and defining it as an area worthy of particular political attention was in the 1970s when several industrialized countries instituted programmes intended to assure security of supply of mineral raw materials. Although concern over the security of supply has now diminished, several countries still maintain programmes and policies aimed at furthering this objective. Several European Governments, including France, Germany, Italy, Spain and the United Kingdom, support in various ways exploration by national companies in other countries. The Governments of Germany and Japan provide direct or indirect financial support to companies investing in mining operations in other countries. (Organisation for Economic Co-operation and Development, 1994, p. 21). "Strategic" or other non-commercial stockpiling of minerals has however decreased in importance, and stockpiles are now only held by the governments of Japan and the United States, with Sweden and the United Kingdom having dissolved their stockpiles. (Organisation for Economic Co-operation and Development, 1994, pp. 21-22 ; UNCTAD, 1986; 1988, annex).

3. This thinking found political expression in United Nations General Assembly resolutions 1803(XVII) on Permanent sovereignty over natural resources, adopted in 1962, and 3281(XXIX)on the Charter of Economic Rights and Duties of States, adopted in 1974.

4. See UNCTAD, 1994a.

5. For a detailed review of changes in this period, see UNCTAD, 1994b, pp. 39-45 and tables 25 and 26.

6. The existence of a large State-owned mining enterprise may lead to a clientelist redistribution of rent in the form of both income and social services. Improving the efficiency of such a company, whether through privatization or otherwise, may not be possible without political and economic transformation of the country (see UNCTAD, 1994c).

7. The results of privatization programmes in all sectors in developing countries are mixed and they have usually proceeded at a slower pace than planned. For instance, in a sample of 14 sub-Saharan African countries, only 29 actual sales were recorded, as compared to a target of 308 (Berg and Shirley, 1987).

8. See Chang and Singh, 1993, for a critical review of the literature on this subject.

9. See Radetzki, 1985, for one of the few attempts to assess systematically the validity of at least some of the characteristics often attributed to State-owned mining enterprises, in particular their alleged tendency to be less responsive to market changes.

10. This is particularly important for countries which are highly mineral-dependent and subject to the economic dislocations of "Dutch disease" (see UNCTAD, 1993b).

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